Introduction
It is always prudent, when faced with frameworks, such as globalisation, that appear too totalising to unpack and disaggregate. Globalisation theorising can be understood as an explanation for the compression or speeding up of human activities. It seeks to "describe, recognise, investigate and explain the accelerated and worldwide increase in the interconnectedness and interdependence between economies, polities, societies and cultures in different parts of the globe, while concurrently examining the impact of globalisation on human development" (Ohmae, 1990, cited in Mok and Currie, 2002). Within this broad discourse, we need to distinguish differences when dealing with the economic, social, political and cultural aspects of globalisation, and that writers on globalisation range from those who are hyperglobalists, sceptics and transformationalists (Held et al. 1999). Thus, implications for education arising from globalisation will depend upon the perspectives one subscribes to.

Globalisation's Consequences
A major tenet of globalisation theorists has been the weakening of the nation state in the face of an ever closer integration of economies. If this is indeed the case, then in those states where education is a national undertaking, there will be significant repercussions. The point at which globalisation and education processes intersect is at the need for national economies to become even more efficient and competitive in the new economic environment, an environment characterised by mobility of capital, talent, jobs, knowledge and accelerating technological innovation. Traditional production processes are deemed to be inefficient, old business models irrelevant and the new is embraced with a vengeance. Increased
importance is given to customer choice; increasing diversification and product niche development. This privileging of flexibility links up with preference for markets, privatisation, and corporatisation as core elements for the revamping of public sector institutions, including educational institutions.

There is another contemporary condition, post-modernism, that will also have implications for how education and schooling processes are being experienced and what sort of changes are implied. Post-modernism, "grounded in scepticism, is rather comfortable with uncertainty, and is allied to constructivism by which ... each person constructs an idiosyncratic understanding of the world and acts upon that understanding rather than upon an objective reality which, if it exists, is comparatively irrelevant" (Linda Mabry, quoted by R.E. Stake). If we take post-modernism seriously, then we have to accept that the world is much more "characterised by a permanent and irreducible plurality of multiple identities and not amenable to models of control and dominance, overly rational planning, elite-driven meta narratives, especially of history. From a post-modern perspective, the future is pretty much unknowable and thus cannot be planned for."

With these characterisations of the new society and economy, advocates have moved on to detail newer conceptualisations of learning, education and new worker attributes, to name but a few. Conceptualisations of learning now draw heavily upon views of the new reality of the workplace. The workplace is characterised as needing workers who possess initiative, ability to solve problems, are comfortable with ambiguity and uncertainty, able to learn afresh when new problems arise, are motivated and take ownership of their learning, and have good communication skills. Indeed, it is often argued that it is better to be an entrepreneur than an employee as that denotes risk-taking abilities.

Thus, a view of learning has gained increasing popularity, that of social-constructivism in which creation of knowledge (meaning) takes precedence over consuming knowledge, where knowledge is seen as a process rather than a product, where both individual cognition and knowledge is embedded in complex tools, for example, computers, and where social interaction and mediation are essential to knowledge mastery. Thus, the relevance of schools is to be judged by how well they produce school leavers with these new attributes; value creation on the part of these workers is essentially seen in economic terms.

Educational Development in Singapore

Before we delve further into the issues, and implications for education of issues described above, it is necessary to sketch out the key attributes of Singapore's education system. Some four decades of evolution and reform have not significantly affected colonial-metropolitan status. Given the ruling ability, the state colonial tripod has been emphasised on training of talent, different within primary, secondary, and high stakes quite distinctly under institutions. Of the well-resourced, it has arisen with a clearly bilingual cognate socialised "folk order" is thus the school structure is unabashedly aimed to serve economic purposes.

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have not significantly altered its colonial-metropolitan structures. Given the ruling elite’s belief in natural ability, the structure mimics the colonial tripartite system with its emphasis on tracking, early selection of talent, differentiated curricula within primary and secondary schools, and high stakes assessments and in quite distinct post-secondary institutions. On these principles, a well-resourced and efficient system has arisen with a capacity to produce a bilingual cognitive elite and well-socialised “followers”. The “natural order” is thus aptly mirrored in the school structure, and the government is unabashed about its use of schooling to serve economic ends.

If anything has tempered the economic imperative, it has been the recognition that schools also need to be used to socialise pupils into citizenship obligations and buy into a national identity. This task has been made difficult and continues to be difficult due to several factors. One has to do with Singapore’s size and vulnerability in an unstable neighbourhood, with neighbours envious of its economic success. Another has to do with the state’s insistence that ethnic “fault lines” have to be acknowledged for what they are and space provided for the sustenance and celebration of ethnic distinctiveness. An insistence on meritocracy as a core principle of governance has served, at least in the short term, to sustain the substantial differences in educational and occupational achievement between the majority Chinese and minority communities. Finally, a competitive school environment places a premium on individual excellence both at individual and institutional levels. Planned and mandated change has been legitimated by the economic success and social cohesion Singapore has enjoyed.

The Ministry of Education’s response to the challenge of globalisation has been to initiate a raft of reforms under the “Thinking Schools, Learning Nation” initiative. Not unexpectedly, the key rationale centres on the need for school leavers to have “new worker” attributes—they are to be able to work in teams, show initiative, be risk-takers, be capable of learning, re-learning and unlearning, and be problem solvers. Accordingly, some curriculum content has been eliminated, project work introduced, a greater stress on multi-disciplinarity introduced, and changes made to university admission to facilitate the above. More significantly, pupils are being readied for a technology-driven work environment by heavy investment in ICT with an already achieved target of one computer to five students. More recently, the MOE has announced a review of JC/C1 education to broaden the offerings, raised the prospect of allowing private schools to operate, to build niche secondary schools, for example, in sports, and to introduce greater structural flexibility by combining various segments of secondary and JC levels, including the option not to offer ‘O’ levels for some students. Also,
university admission criteria have been modified and the concept of an autonomous examination authority floated. If that comes to pass, examinations like the SAT and the Baccalaureate are likely to become more prominent in the education system.

While the policy responses have been formulated, two broad issues remain. Firstly, is the reform agenda sufficiently radical to alter and increase the flexibility of deeply entrenched structures? Secondly, has adequate attention been given to considering how policies that have been introduced are being enacted in the classrooms, and if and how teacher-pupil relationships are changing such that students feel empowered, are enjoying learning and therefore learning more and learning better?

In addressing these questions, one cannot avoid acknowledging the weight of historical and social circumstances. Singapore’s turbulent political history and ethnic fragility, as our leaders continually tell us, predisposes us towards control and an emphasis on order. Recent disorder in a number of neighbouring countries serves as a caution. Thus, while nods of assent are made to calls for greater liberalisation, in reality and in practice, change is slow and hesitant. This is somewhat surprising in a country which does not have the burdens of centuries of history, where a spirit of pragmatism is said to rule, and where a “restless migrant” mentality could reasonably be expected to remain.

If one examines the situation more closely, it appears that the government is prepared to be more radical in economic than in socio-political restructuring. A number of government entities have been corporatised, ownership liberalised in government-owned companies, and much greater competition introduced in a number of service areas. And the pace of reform and change is quickening, in part forced by global trends and the need to remain competitive. However, there are those who continue to argue that there is still an inability to let go, to “steer from a distance.” On the political front, while there is some evidence of openness, civil society organisations and the public at large are still marginal in the policy formulation process. Almost every regional and international event sees the government emphasising the need for a strong, vigilant state. There must be doubts therefore that entrepreneurship can thrive in Singapore’s present socio-political climate which continues to be paternalistic. Is there greater evidence of risk-taking, challenging the status quo in Singapore’s adult population? And if not, is Singapore sufficiently changed to meet globalisation’s challenges? At least a partial answer to this slow pace is to be found in a comment by Tharman Shanmugasuthra, State for Education, that a culture of individualism is apparently needed against social control.

We need to consider the social context in which the embedded policies are being introduced and if these do not sustain social change, then the policy will be subjected to constraints. If there is no change, then the society will seek to counteract that change. Socio-political events are much as much from economic origins as from social change.

Nature and Learning: Change

It is possible that the current reforms, and the pace of reform, are probably too constrained by social constraints—just too sacrosanct. In some examples what starts as policy, for instance, adjusting to accelerating learning difficulties, seems possible. It is possible to adjust to examples such as bilingual policy, for instance, changing bilingual objectives. The bilingual objective in particular for language learning and education seems possible. Thus, a belief that it is possible to change specific functions and objectives. If English is to be used for purposes and the
Shanmugaratnam, Senior Minister of State for Education and for Manpower, that a culture of economic individualism, which Singapore apparently needs, will tend to work against social cohesion.

We need to speak of the wider social contexts in which schools are embedded precisely because schools are not autonomous institutions, but reflect, and indeed in some measure, sustain social norms. If society is to be subjected to carefully measured change, then it follows that schools will seek to change in tandem. And schools, it can be argued, take their cues as much from socio-political as from economic trends.

Nature and Limits to Educational Change

It is possible to make the case that, current reforms notwithstanding, the pace of reform in education is probably too cautious and still subject to constraints—some sacred cows are just too sacred to review. Two examples will suffice. The bilingual policy, for instance, has seen frequent adjusting to accommodate students’ learning difficulties but no review yet seems possible of the old formulation of language domains, and if indeed the bilingual policy is delivering on its objectives. This is because of a particular formulation of how language and ethnicity are linked and a belief that it is possible to attribute specific functions to languages. Thus, English is to be learnt for utilitarian purposes and the mother tongue for ethnic rooting. Four decades on, and in a vastly changed world, is such a formulation tenable? An undeniable fact is that a vast majority of Singapore’s schoolchildren find mother tongue learning burdensome and few use the learning after leaving school. A freer, more flexible approach to language learning via greater language choice has the potential to transform schooling experiences for many school children. This is not an argument against bilingual education, only that many more models are available and need to be examined.

A second core concept that underpins schooling in Singapore is the belief that it is possible to determine early on who, and how, they are talented and to control opportunities for types of future education based on such estimations. These beliefs led to policies that may have been appropriate at a time when the economy did not generate much wealth and a careful husbanding of resources was needed—a manpower planning approach was justified in that context. To what extent is it possible to sustain such assumptions now? Is the policy response adequate; is ability driven education (ADE) an acceptance of multiple intelligences, of valid and vital differences? If it is, it is doing very little to change the lived experience of schoolchildren in Singapore, fearful in Primary Four about what track they will be in the upper primary, the intolerable pressure of the Primary School Leaving Examination, results which dictate the secondary tracks, of further selection at Secondary Two and
at the 'O' Level examinations. Too much status and opportunity is still attached to certain types of abilities and competencies and the schooling structures continue to reinforce this.

A related case in point is polytechnic education. Singapore has a very good polytechnic education which is intended to link training with jobs but more and more polytechnic graduates never intended to be content with a diploma, and many see polytechnic education as only a step to other, often unrelated, forms of training.

While policymakers seek to sustain a planning paradigm more relevant to an economy that is now gone, students are making their own choices.

While the government has introduced changes to enable teachers to equip themselves to meet new pedagogic challenges—all teachers are entitled to 100 hours of in-service per annum and paid for by government—and conditions of work and promotion opportunities have been enhanced, a prevailing culture of competition works against many of the initiatives. The policy on ranking leads many schools to focus narrowly on results and outcomes that are appropriate for the exercise. At a pedagogic level, this leads to schools and students dropping subjects like literature, a continued reliance on drill and worksheets, valuable curriculum time given over to examination preparation. Even when the MOE has begun to emphasise processes and a wider range of indicators, schools are not above resorting to the same covert strategies to increase their positional advantage.

The reforms being undertaken in Singapore’s educational system to prepare it for globalisation’s challenges are similar to reforms being undertaken in other countries—almost everywhere there is an emphasis on devolution of authority to schools and districts, an emphasis on processes, school level flexibility to enhance quality, moves towards a more learner-centred pedagogy, more integrated studies, project work, greater use of online resources, changes to assessment and examinations and enhancing professional development opportunities for teachers.

The question for Singapore’s policymakers is whether these changes are sufficiently radical to meet the challenges of the times. Will these changes truly empower teachers to respond adequately to the range of abilities, talents, motivations that pupils bring to the learning situation? Will principals have sufficient authority to make their schools distinctive, to respond to what their pupils need rather than play the ranking game? Will the pedagogic culture change sufficiently to enable pupils to discover a love for learning, increase their motivation and be more innovative and enterprising? The answers to these questions must evidently lie in the future and Singapore’s level of educational resourcing, capacity to see policies implemented, and stable and effective systems and prospects.
effective system do signal good prospects. Paradoxically, however, the widely acknowledged effectiveness of the present day system, the need for it to serve clearly defined economic and social goals, generally monolithic character control and Singapore’s penchant for incremental change will militate against substantive change being achieved swiftly. It is perhaps not sufficiently well realised that real change will not occur without a transformation in teachers’ beliefs leading to changes in teachers’ behaviour aided by the provision of resources. Forty years of educational development has left Singapore with a standardised content-heavy curriculum reinforced by frequent assessment and high stakes examinations. Drill and coaching was the dominant response and that is going to be devilishly hard to change. Teachers have to unlearn many deeply held beliefs and assumptions, question their status as experts and engage with students who are no longer docile. If they do not, teacher behaviour will range from unwilling compliance, sabotage, adoption of some minor change to a full embrace of the newer pedagogic possibilities. And resources are important, too. Singapore schools are extraordinarily well resourced, especially in technology. However, teachers seem to lack time and class sizes are large. Teachers have multiple responsibilities which leave them with too little time to learn collegially how to teach differently, to build and share appropriate instructional resources and to engage in activities that would develop and sustain a school culture of innovation. If class sizes continue to be large, what is likely to happen is that innovative practices like project work will be stripped to their essentials and become standardised and routinised. Thus, we will have project work in schools but it will not deliver on its intended outcomes.

Many overseas academics marvel at the systematic way in which Singapore has gone about seeking to bring changes to its education system and are envious about the level of resourcing available to schools and educational institutions generally. As we have sought to point out, that is only one part of the equation. There are undoubtedly some schools that are good examples of effective change. But system-wide change has yet to happen even as globalisation pressures intensify. Singapore’s nation-building history has resulted in an omnipresent state that cherishes stability and order. That stands uneasily with a desire for innovation, experimentation and creativity in society and in the schools.

References

The new electronic interdependence recreates the world in the image of a global village.

The Gutenberg Galaxy

Singapore wordt een wereld van globale eenwording. Alles is verstrikt in het netwerk van de elektronische communicatie, waarbij de tradities en culturen van de wereld omarmend worden. De westerse globalisering is een paradox, want hoewel ze de wereld samenvoegt, creëert ze ook ongelijkheid en ongeluk. De SingaporeËS wereld is een voorbeeld van hoe deze globalisering wordt beheerst. Het blijkt dat Singapore een voorbeeld is voor anderen, als het gaat om de strijd tegen globalisering. 

Ik gebruik de term 'globalisering' als een geconfronteerd actiebeleid, waarbij de SingaporeËS samenhang met de wereld wordt bevestigd. Het is een voorbeeld van hoe een lokale context worden veranderd, terwijl de globalisering wordt beheerst, waardoor een nieuwe wereld van globale eenwording wordt ontstaan.